

# Mohammed Gharib

## List of Publications by Year in descending order

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Version: 2024-02-01

67  
papers

9,884  
citations

50276

46  
h-index

144013

57  
g-index

68  
all docs

68  
docs citations

68  
times ranked

6991  
citing authors

#	ARTICLE	IF	CITATIONS
1	Digital particle image velocimetry. <i>Experiments in Fluids</i> , 1991, 10, 181-193.	2.4	1,658
2	Intracardiac fluid forces are an essential epigenetic factor for embryonic cardiogenesis. <i>Nature</i> , 2003, 421, 172-177.	27.8	943
3	A universal time scale for vortex ring formation. <i>Journal of Fluid Mechanics</i> , 1998, 360, 121-140.	3.4	934
4	The effect of a discrete window offset on the accuracy of cross-correlation analysis of digital PIV recordings. <i>Experiments in Fluids</i> , 1997, 23, 20-28.	2.4	449
5	The role of streamwise vorticity in the near-field entrainment of round jets. <i>Journal of Fluid Mechanics</i> , 1992, 245, 643.	3.4	432
6	Echocardiographic Particle Image Velocimetry: A Novel Technique for Quantification of Left Ventricular Blood Vorticity Pattern. <i>Journal of the American Society of Echocardiography</i> , 2010, 23, 86-94.	2.8	400
7	On errors of digital particle image velocimetry. <i>Measurement Science and Technology</i> , 1997, 8, 1427-1440.	2.6	332
8	Optimal vortex formation as an index of cardiac health. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 6305-6308.	7.1	289
9	Reversing Blood Flows Act through <i>klf2a</i> to Ensure Normal Valvulogenesis in the Developing Heart. <i>PLoS Biology</i> , 2009, 7, e1000246.	5.6	272
10	The Embryonic Vertebrate Heart Tube Is a Dynamic Suction Pump. <i>Science</i> , 2006, 312, 751-753.	12.6	260
11	The Structure and Function of the Helical Heart and Its Buttress Wrapping. I. The Normal Macroscopic Structure of the Heart. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2001, 13, 301-319.	0.6	219
12	Flow patterns generated by oblate medusan jellyfish: field measurements and laboratory analyses. <i>Journal of Experimental Biology</i> , 2005, 208, 1257-1265.	1.7	201
13	Circulation and formation number of laminar vortex rings. <i>Journal of Fluid Mechanics</i> , 1998, 376, 297-318.	3.4	167
14	Defocusing digital particle image velocimetry and the three-dimensional characterization of two-phase flows. <i>Measurement Science and Technology</i> , 2002, 13, 683-694.	2.6	165
15	Influence of microcalcifications on vulnerable plaque mechanics using FSI modeling. <i>Journal of Biomechanics</i> , 2008, 41, 1111-1118.	2.1	157
16	Fluid entrainment by isolated vortex rings. <i>Journal of Fluid Mechanics</i> , 2004, 511, 311-331.	3.4	146
17	Two-frame 3D particle tracking. <i>Measurement Science and Technology</i> , 2006, 17, 1680-1692.	2.6	143
18	Vortex Shedding as a Mechanism for Free Emboli Formation in Mechanical Heart Valves. <i>Journal of Biomechanical Engineering</i> , 2000, 122, 125-134.	1.3	140

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19	A liquid film (soap film) tunnel to study two-dimensional laminar and turbulent shear flows. <i>Physica D: Nonlinear Phenomena</i> , 1989, 37, 406-416.	2.8	139
20	Rapid three-dimensional imaging and analysis of the beating embryonic heart reveals functional changes during development. <i>Developmental Dynamics</i> , 2006, 235, 2940-2948.	1.8	134
21	Role of the tip vortex in the force generation of low-aspect-ratio normal flat plates. <i>Journal of Fluid Mechanics</i> , 2007, 581, 453-468.	3.4	134
22	Experimental study of three-dimensional vortex structures in translating and rotating plates. <i>Experiments in Fluids</i> , 2010, 49, 329-339.	2.4	115
23	Starting flow through nozzles with temporally variable exit diameter. <i>Journal of Fluid Mechanics</i> , 2005, 538, 111.	3.4	108
24	Uncovering the physics of flapping flat plates with artificial evolution. <i>Journal of Fluid Mechanics</i> , 2005, 534, 403-409.	3.4	101
25	Ordered and chaotic vortex streets behind circular cylinders at low Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 1987, 174, 113-133.	3.4	100
26	Leading-Edge Vortex Structure of Nonslender Delta Wings at Low Reynolds Number. <i>AIAA Journal</i> , 2003, 41, 16-26.	2.6	100
27	Fluctuations and transport in a stirred fluid with a mean gradient. <i>Physical Review Letters</i> , 1991, 67, 3507-3510.	7.8	99
28	Current status of flow convergence for clinical applications: Is it a leaning tower of "PISA"? <i>Journal of the American College of Cardiology</i> , 1996, 27, 504-509.	2.8	96
29	Efficiency improvement of straight-bladed vertical-axis wind turbines with an upstream deflector. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2013, 115, 48-52.	3.9	93
30	The role of optimal vortex formation in biological fluid transport. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 1557-1560.	2.6	90
31	Confocal Laser Tomographic Analysis of the Retina in Eyes with Macular Hole Formation and Other Focal Macular Diseases. <i>American Journal of Ophthalmology</i> , 1989, 108, 277-287.	3.3	82
32	Changing the academic culture: Valuing patents and commercialization toward tenure and career advancement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 6542-6547.	7.1	79
33	Experimental study of the behavior of a valveless impedance pump. <i>Experiments in Fluids</i> , 2005, 38, 534-540.	2.4	77
34	Thrust Augmentation and Vortex Ring Evolution in a Fully-Pulsed Jet. <i>AIAA Journal</i> , 2005, 43, 792-801.	2.6	77
35	On Mitral Valve Dynamics and its Connection to Early Diastolic Flow. <i>Annals of Biomedical Engineering</i> , 2009, 37, 1-13.	2.5	76
36	Hydrodynamic stability of swimming in ostraciid fishes: role of the carapace in the smooth trunkfish <i>Lactophrys triqueter</i> (Teleostei: Ostraciidae). <i>Journal of Experimental Biology</i> , 2003, 206, 725-744.	1.7	75

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37	Large-amplitude flapping of an inverted flag in a uniform steady flow – a vortex-induced vibration. <i>Journal of Fluid Mechanics</i> , 2016, 793, 524-555.	3.4	75
38	The formation number of vortex rings formed in uniform background co-flow. <i>Journal of Fluid Mechanics</i> , 2006, 556, 147.	3.4	73
39	Correlation Between Vortex Ring Formation and Mitral Annulus Dynamics During Ventricular Rapid Filling. <i>ASAIO Journal</i> , 2007, 53, 8-16.	1.6	71
40	Three-dimensional reconstruction of color doppler flow convergence regions and regurgitant jets: An in vitro quantitative study. <i>Journal of the American College of Cardiology</i> , 1996, 27, 1511-1518.	2.8	68
41	Experimental investigation of the vorticity generation within a spilling water wave. <i>Journal of Fluid Mechanics</i> , 1997, 330, 113-139.	3.4	67
42	Body-induced vortical flows: a common mechanism for self-corrective trimming control in boxfishes. <i>Journal of Experimental Biology</i> , 2005, 208, 327-344.	1.7	67
43	A valveless micro impedance pump driven by electromagnetic actuation. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 861-866.	2.6	67
44	Leonardo's vision of flow visualization. <i>Experiments in Fluids</i> , 2002, 33, 219-223.	2.4	66
45	The Structure and Function of the Helical Heart and Its Buttress Wrapping. IV. Concepts of Dynamic Function From the Normal Macroscopic Helical Structure. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2001, 13, 342-357.	0.6	62
46	Experimental studies of vortex disconnection and connection at a free surface. <i>Journal of Fluid Mechanics</i> , 1996, 321, 59-86.	3.4	56
47	Fully distributed ECC-based key management for mobile ad hoc networks. <i>Computer Networks</i> , 2017, 113, 269-283.	5.1	29
48	Throughput Analysis of IEEE 802.11 Multi-Hop Wireless Networks With Routing Consideration: A General Framework. <i>IEEE Transactions on Communications</i> , 2018, 66, 5430-5443.	7.8	14
49	An Exhaustive Study of Using Commercial LTE Network for UAV Communication in Rural Areas. , 2021, , .		12
50	UASTrustChain: A Decentralized Blockchain- Based Trust Monitoring Framework for Autonomous Unmanned Aerial Systems. <i>IEEE Access</i> , 2020, 8, 226074-226088.	4.2	12
51	A Novel Probabilistic Key Management Algorithm for Large-Scale MANETs. , 2013, , .		11
52	Secure Overlay Routing Using Key Pre-Distribution: A Linear Distance Optimization Approach. <i>IEEE Transactions on Mobile Computing</i> , 2016, 15, 2333-2344.	5.8	8
53	LB-OPAR: Load balanced optimized predictive and adaptive routing for cooperative UAV networks. <i>Ad Hoc Networks</i> , 2022, 132, 102878.	5.5	6
54	Secure Overlay Routing for Large Scale Networks. <i>IEEE Transactions on Network Science and Engineering</i> , 2019, 6, 501-511.	6.4	5

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55	Modeling and Evaluation of Multi-Hop Wireless Networks Using SRNs. IEEE Transactions on Network Science and Engineering, 2021, 8, 662-679.	6.4	5
56	A Novel Method for Supporting Locality in Peer-to-Peer Overlays Using Hypercube Topology. , 2010, , .		4
57	VeriVANca framework: verification of VANETs by property-based message passing of actors in Rebeca with inheritance. International Journal on Software Tools for Technology Transfer, 2020, 22, 617-633.	1.9	4
58	OPAR: Optimized Predictive and Adaptive Routing for Cooperative UAV Networks. , 2021, , .		4
59	Expert key selection impact on the MANETs' performance using probabilistic key management algorithm. , 2013, , .		3
60	Probabilistic Key Pre-Distribution for Heterogeneous Mobile Ad Hoc Networks Using Subjective Logic. , 2015, , .		3
61	An area-scalable human-based mobility model. Computer Networks, 2020, 177, 107300.	5.1	3
62	Fully Distributed Self Certified Key Management for Large-Scale MANETs. , 2013, , .		2
63	SLoPCloud: An Efficient Solution for Locality Problem in Peer-to-Peer Cloud Systems. Algorithms, 2018, 11, 150.	2.1	2
64	VeriVANca: An Actor-Based Framework for Formal Verification of Warning Message Dissemination Schemes in VANETs. Lecture Notes in Computer Science, 2019, , 244-259.	1.3	2
65	A novel human mobility model for MANETs based on real data. , 2014, , .		1
66	The Effect of Using Cube Connected Cycle for Improving Locality Awareness in Peer-to-Peer Networks. , 2010, , .		0
67	IDS Modeling and Evaluation in WANETs against Black/Gray-hole Attacks using Stochastic Models. International Journal of Ad Hoc and Ubiquitous Computing, 2015, 1, 1.	0.5	0